

4.2.C. 0801021003 (Wolf River).

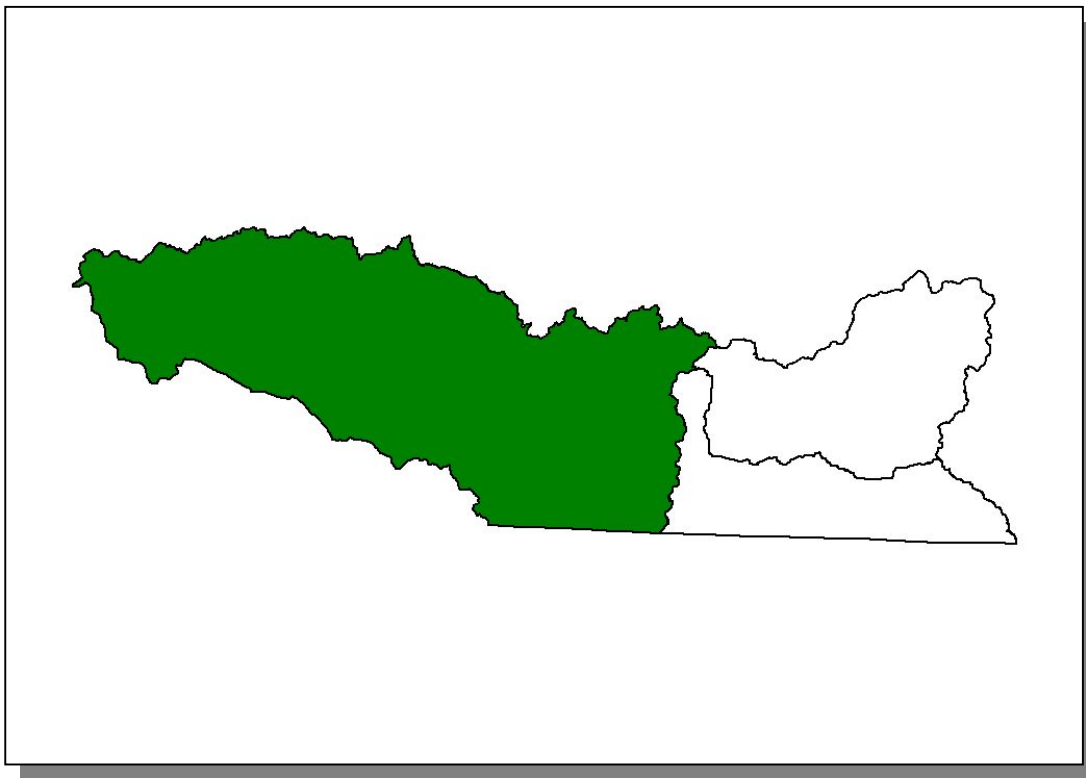


Figure 4-19. Location of Subwatershed 0801021003. All Wolf River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.C.i. General Description.

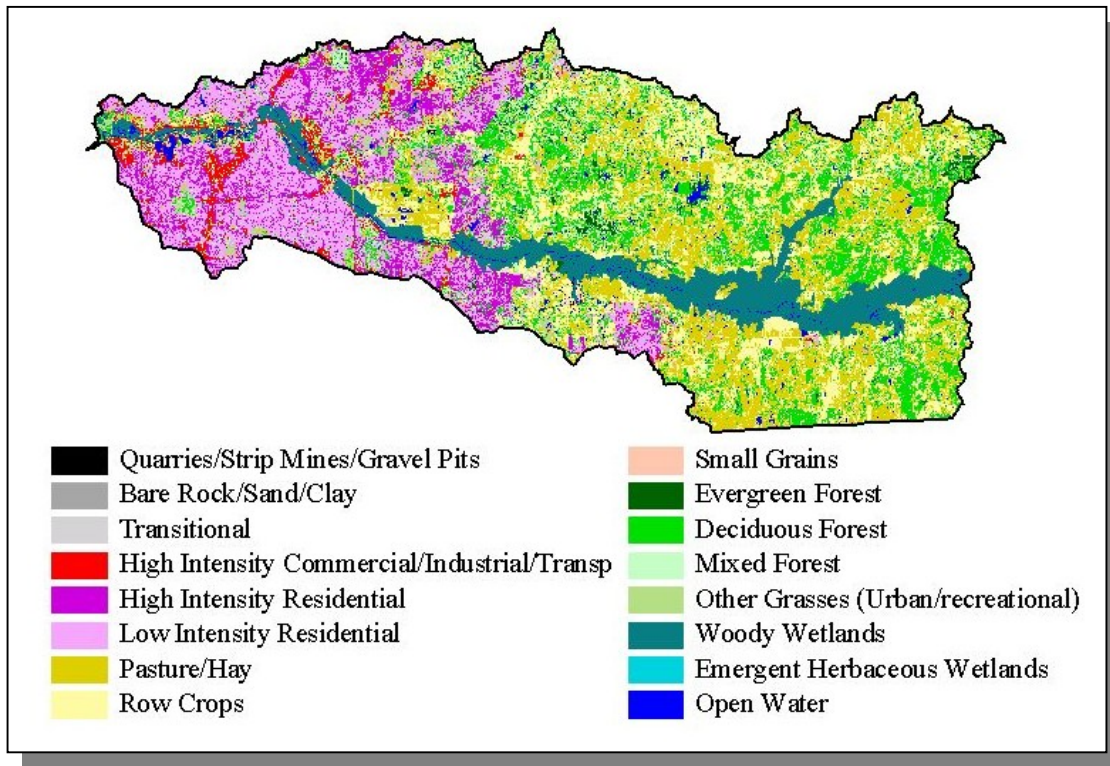


Figure 4-20. Illustration of Land Use Distribution in Subwatershed 0801021003.

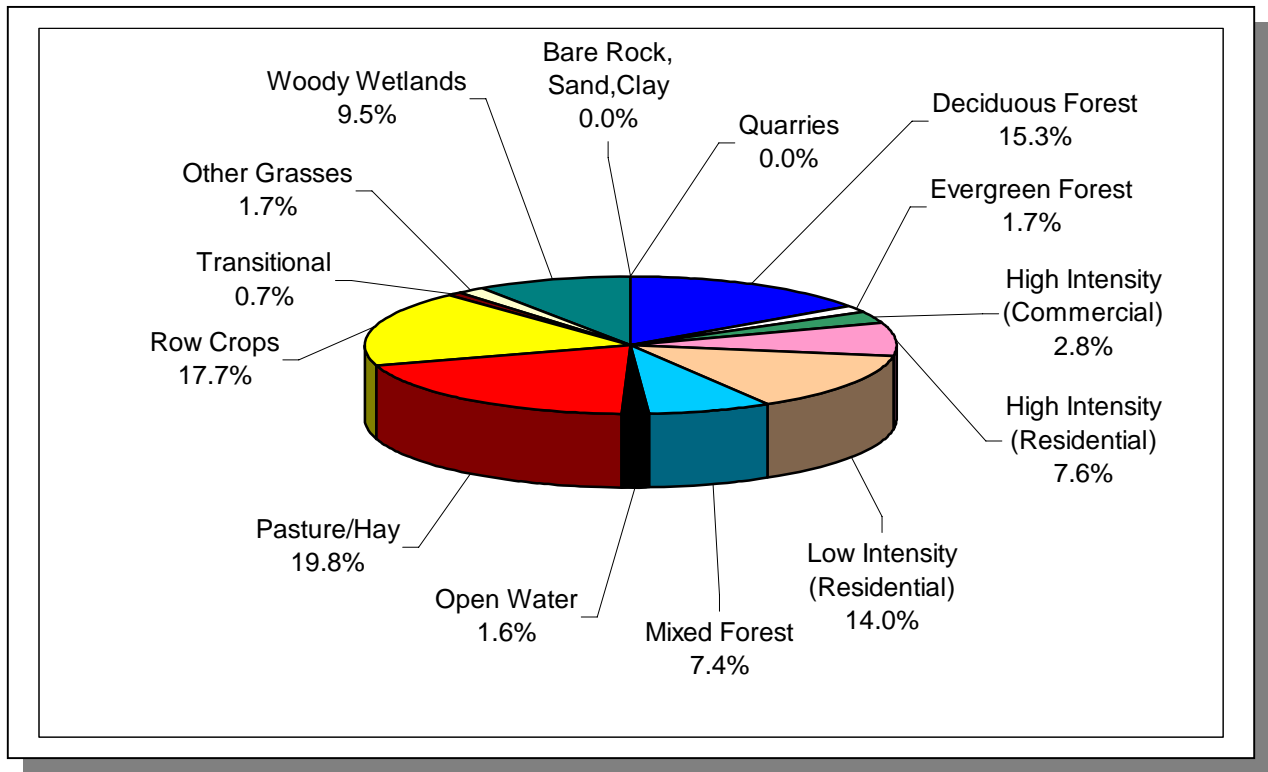


Figure 4-21. Land Use Distribution in Subwatershed 0801021003. More information is provided in Appendix IV.

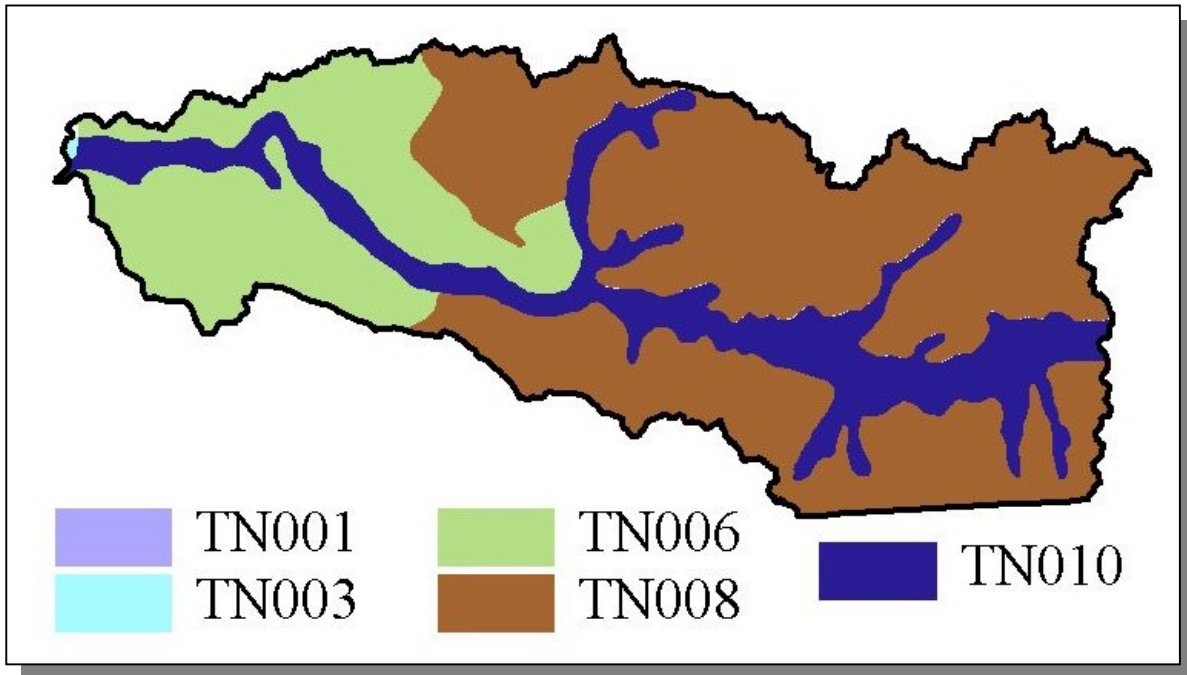


Figure 4-22. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0801021003.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN001	14.00	C	2.31	7.00	Silty Loam	3.03
TN003	62.00	C	0.50	6.65	Silty Clay	0.33
TN006	0.00	C	1.30	5.42	Silty Loam	0.48
TN008	2.00	C	1.38	5.20	Silty Loam	0.48
TN010	81.00	C	1.33	5.11	Silty Loam	0.44

Table 4-14. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 0801021003. More information is provided in Appendix IV.

County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-1997)
	1990	1997	2000		1990	1997	2000	
Fayette	25,559	29,412	28,806	20.42	5,219	6,006	5,882	12.7
Shelby	826,330	865,318	897,472	26.44	218,464	228,771	237,272	8.6
Totals	851,889	894,730	926,278		223,683	234,777	243,154	8.7

Table 4-15. Population Estimates in Subwatershed 0801021003.

Populated Place	County	Population	NUMBER OF HOUSING UNITS			
			Total	Public Sewer	Septic Tank	Other
Bartlett	Shelby	26,989	8,807	8,545	217	45
Collierville	Shelby	14,427	4,613	4,512	84	17
Germantown	Shelby	32,893	11,131	11,017	114	0
Lakeland	Shelby	1,204	475	319	154	2
Memphis	Shelby	610,337	248,573	247,138	793	642
Piperton	Fayette	621	256	23	224	9
Total		686,471	273,855	271,554	1,586	715

Table 4-16. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 0801021003.

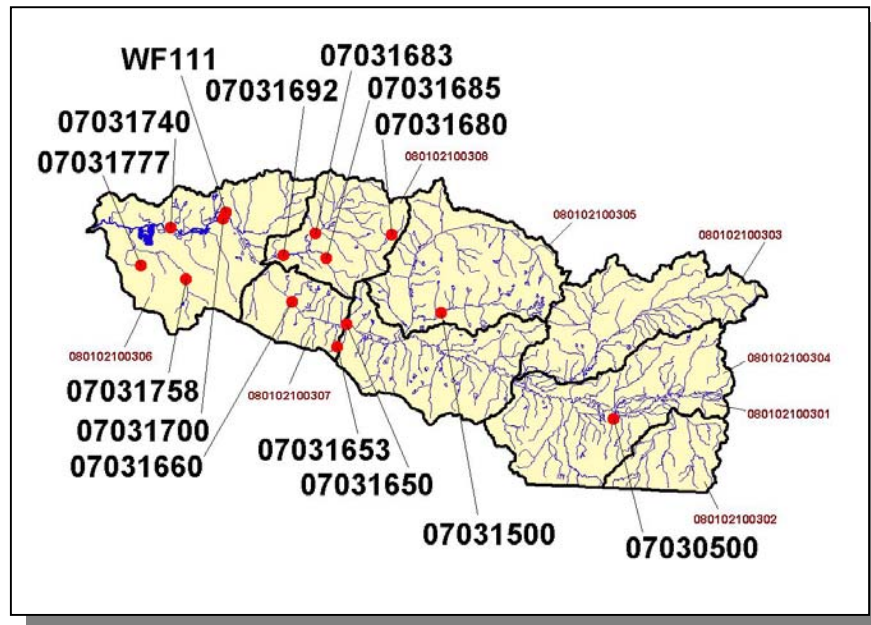


Figure 4-23. Location of Historical Streamflow Data Collection Sites in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information is provided in Appendix IV.

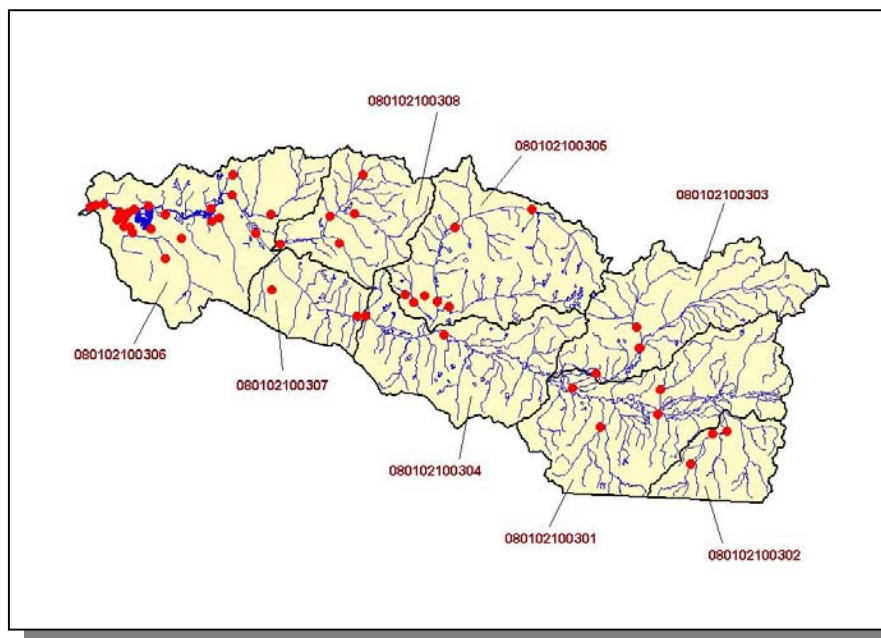


Figure 4-24. Location of STORET Monitoring Sites in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including site names and locations, is provided in Appendix IV.

4.2.C.ii. Point Source Contributions.

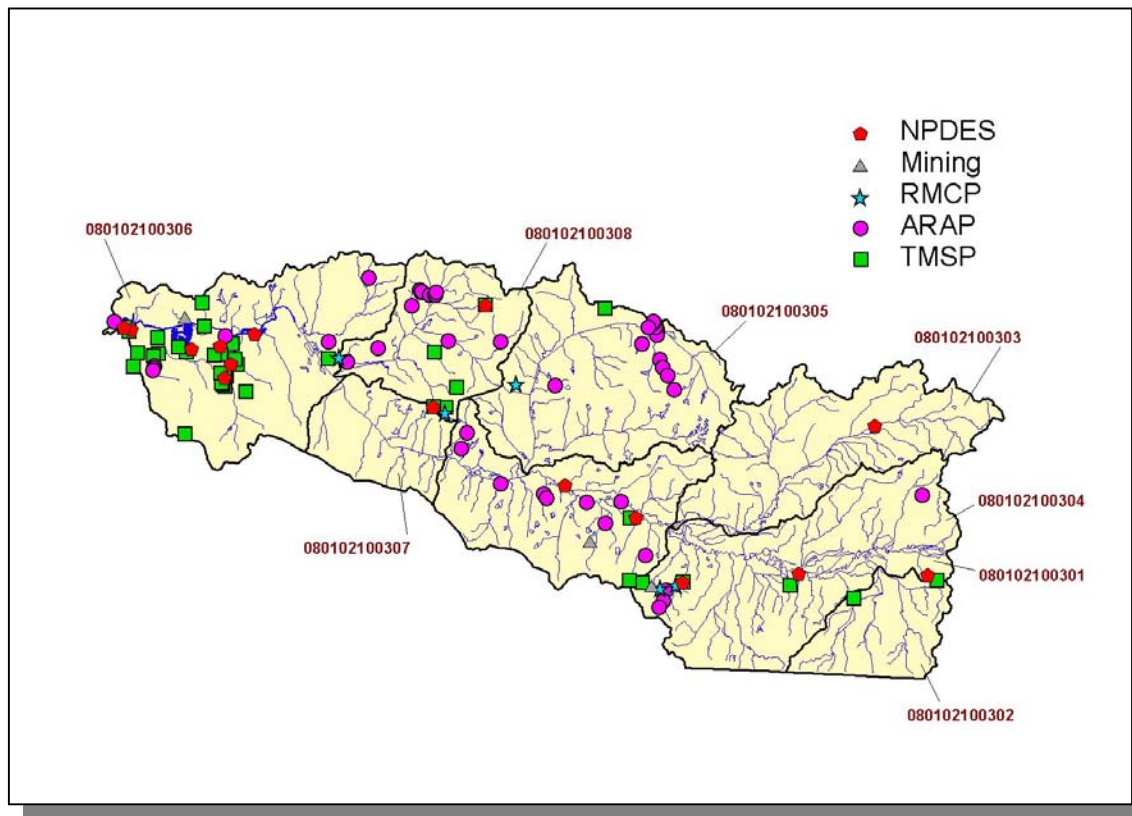


Figure 4-25. Location of Active Point Source Facilities in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

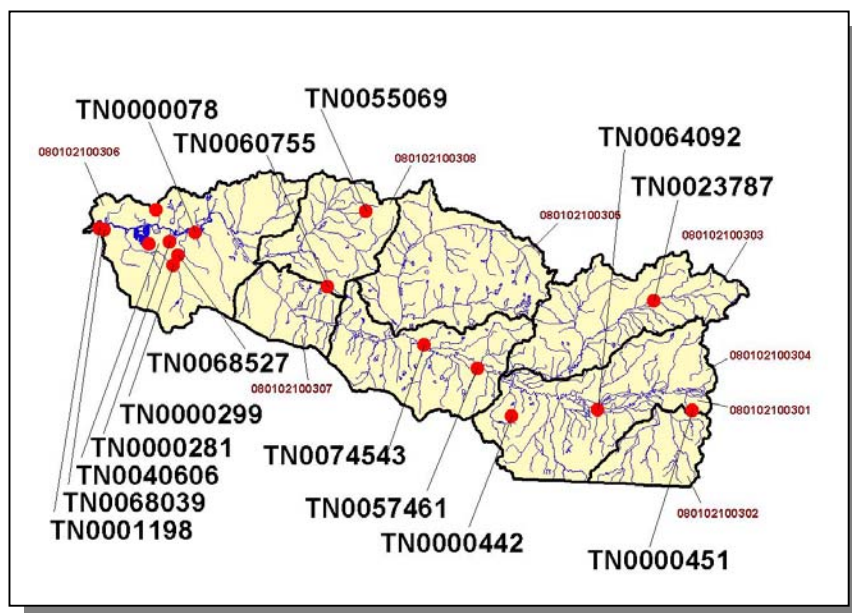


Figure 4-26. Location of NPDES Facilities in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

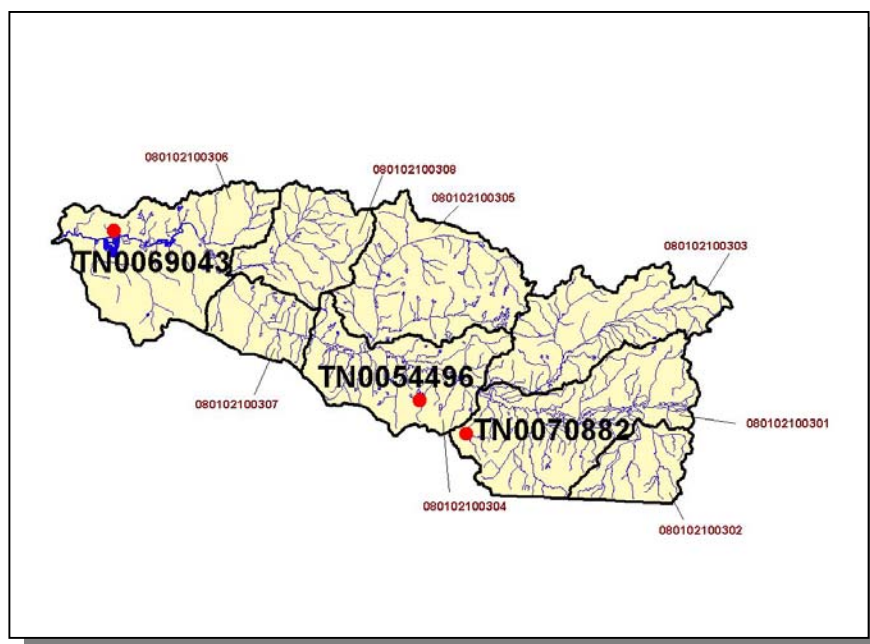


Figure 4-27. Location of Active Mining Facilities in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

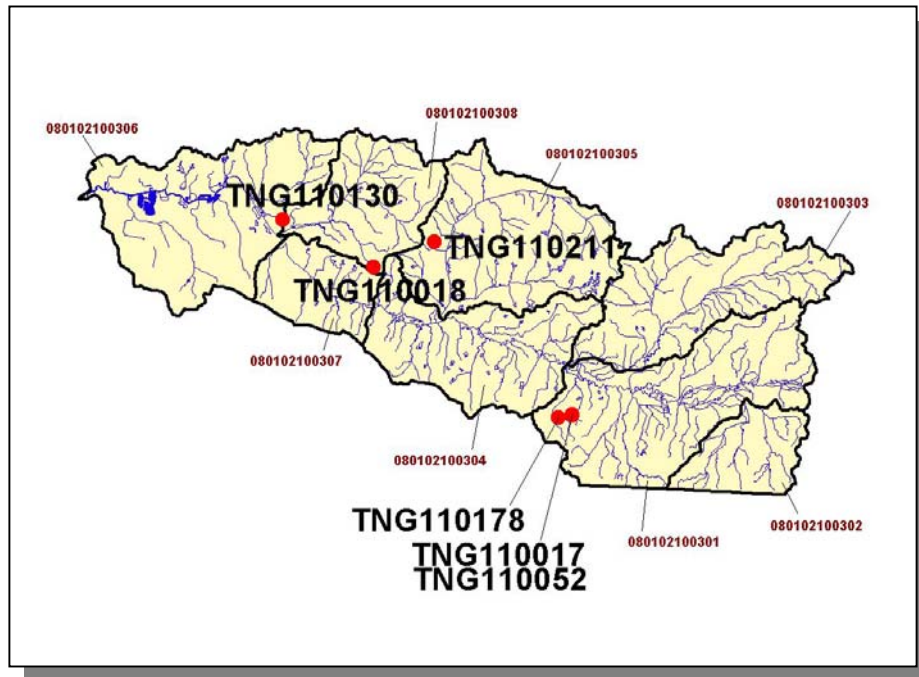


Figure 4-28. Location of Ready Mix Concrete Plants in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

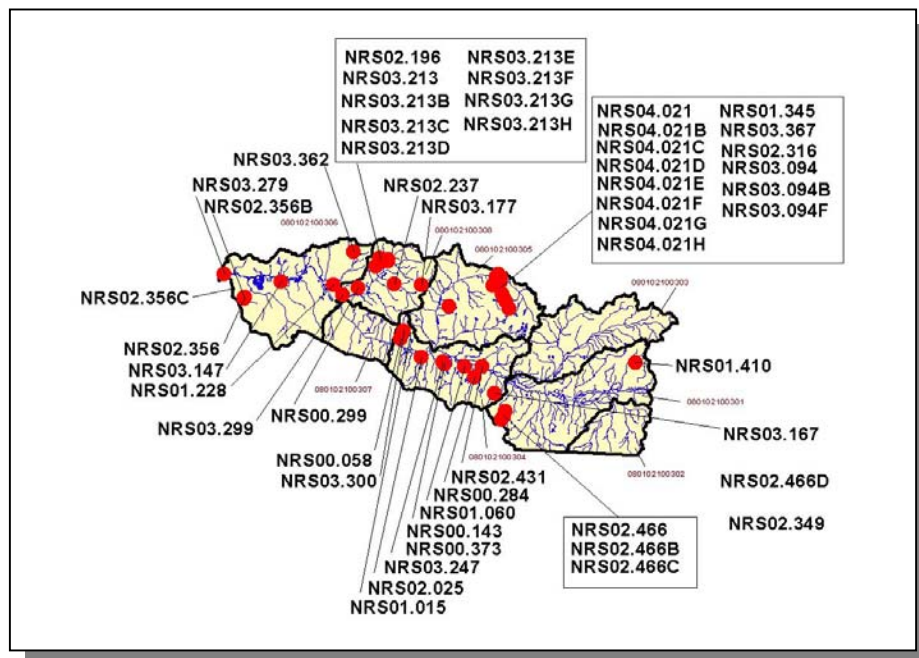


Figure 4-29. Location of ARAP Sites (Individual Permits) in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

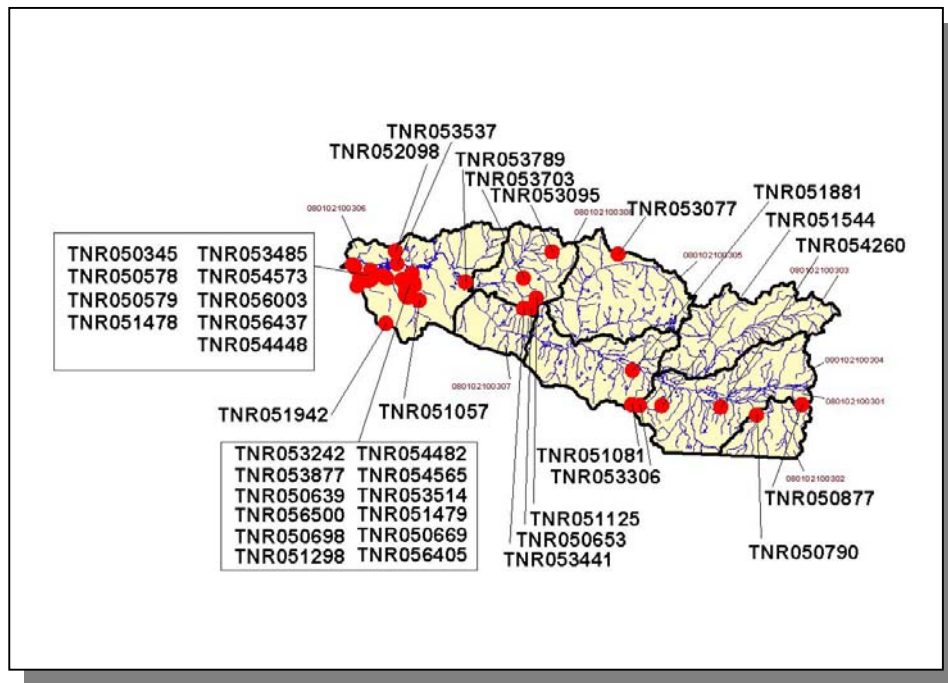


Figure 4-30. Location of TMSP Facilities in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

4.2.C.ii.a. Dischargers to Water Bodies Listed on the 2002 303(d) List

There are eleven NPDES facilities discharging to water bodies listed on the 2002 303(d) list in Subwatershed 0801021003:

- TN0023787 (Southwest School STP) discharges to an Unnamed Tributary @ RM 0.8 to Shaws Creek @ RM 13.1
- TN0057461 (Collierville STP) discharges to Wolf River @ RM 30.9
- TN0074543 (Collierville NW STP) discharges to Wolf River @ RM 25.3
- TN0000078 (Penn Specialty Chemicals) discharges to Wolf River @ RM 6.9
- TN0068527 (Crompton Corporation) discharges to Workhouse bayou
- TN0000299 (Buckeye Technologies) discharges to Cypress Creek @ RM 4.1, 4.3, and 4.4
- TN0000281 (Southern Cotton Oil Company) discharges to an Unnamed Tributary @ RM 0.5, 0.6, and 0.7 to Workhouse bayou @ RM 4.5
- TN0040606 (Buckman Laboratories) discharges to City Storm Sewer to Cypress Creek @ RM 1.2 and 2.2
- TN0068039 (Memphis Hardwood Flooring) discharges to Wolf River @ RM 1.5 and to Memphis Storm Sewer and WWC to Wolf River @ RM 1.5
- TN0001198 (KTG) discharges to Wolf River Lagoon and Marble Bayou Pump Station

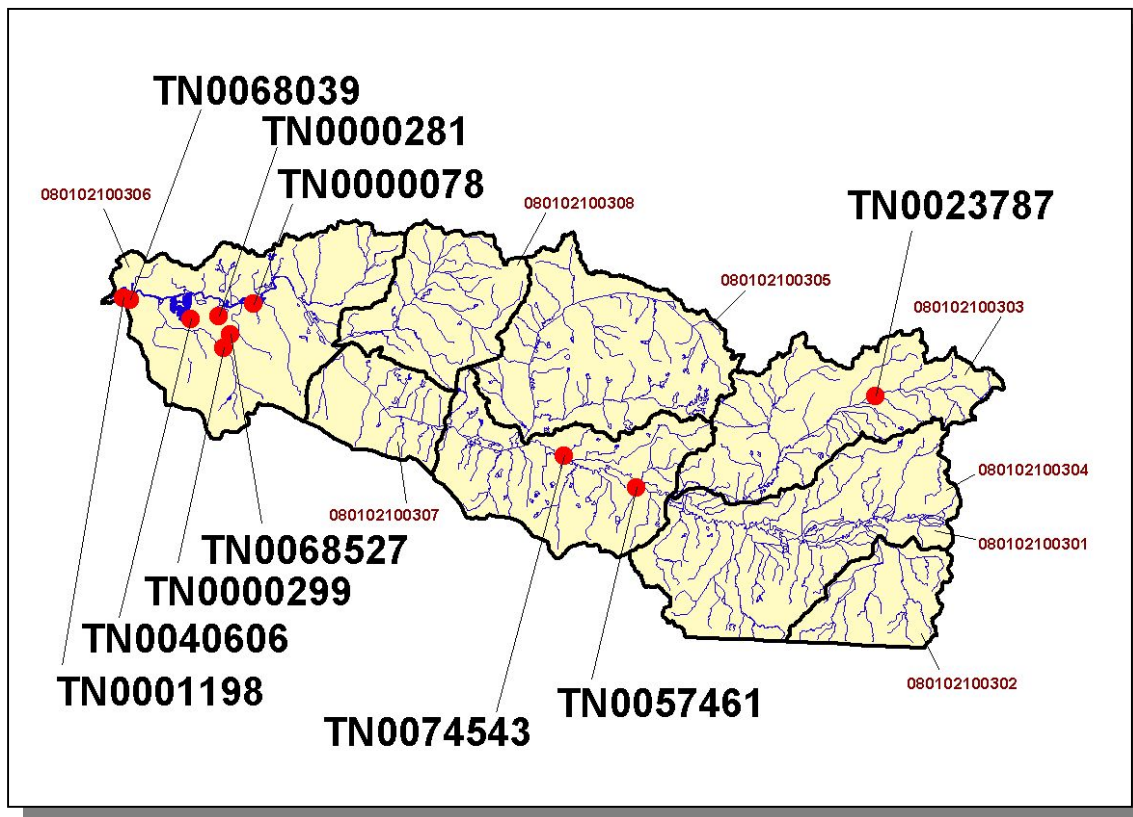


Figure 4-31. Location of NPDES Dischargers to Water Bodies Listed on the 2002 303(d) List in Subwatershed 0801021003. Subwatershed 080102100301, 080102100302, 080102100303, 080102100304, 080102100305, 080102100306, 080102100307, and 080102100308 boundaries are shown for reference. More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0023787			0		0.02
TN0057461	151	155	160	145	3.5
TN0074543	151	155	160	145	3.0
TN0000078	206	207	210	195	
TN0068527					
TN0000299				0	
TN0000281					
TN0001317					
TN0040606				0	
TN0068039					
TN0001198					

Table 4-17. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0801021003. Data are in million gallons per day (MGD). Data were obtained from the USGS publication *Flow Duration and Low Flows of Tennessee Streams Through 1992* or from permit files.

PERMIT #	TOTAL P	pH	TOC	TSS	OIL and GREASE	CBOD ₅	COD
TN0000078		X		X	X		X
TN0068527	X	X	X		X	X	
TN0000281				X	X	X	
TN0040606		X	X	X			

Table 4-18. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0801021003. TOC, Total Organic Carbon; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day).

PERMIT #	WET	CBOD ₅	FECAL COLIFORM	E. COLI	NH ₃	TRC	TSS	SETTLABLE SOLIDS	OIL and GREASE	DO	pH
TN0023787		X	X	X	X	X	X	X		X	X
TN0057461	X	X	X	X		X	X	X		X	X
TN0074543	X	X	X	X		X	X	X		X	X
TN0000078	X	X				X	X		X		X
TN0000299	X										X
TN0000281							X		X		X
TN0001317						X	X		X		X
TN0040606	X								X		
TN0068039							X		X		X
TN0001198											X

Table 4-19. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2002 303(d) List in Subwatershed 0801021003. WET, Whole Effluent Toxicity; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

4.2.C.iii. Nonpoint Source Contributions.

LIVESTOCK (COUNTS)						
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens Sold	Hogs	Sheep
6,291	11,565	325	16	<5	8,179	94

Table 4-20. Summary of Livestock Count Estimates in Subwatershed 0801021003. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Fayette	152.0	152.0	1.1	3.3
Shelby	111.6	111.6	0.0	0.0
Totals	263.6	263.6	1.1	3.3

Table 4-21. Forest Acreage and Average Annual Removal Rates (1987-1994) in Subwatershed 0801021003.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.40
Grass (Hayland)	0.29
Legumes (Hayland)	2.85
Legumes, Grass (Hayland)	0.22
Grass, Forbs, Legumes (Mixed Pasture)	0.47
Forest Land (Not Grazed)	0.00
Forest Land (Grazed)	0.00
Corn (Row Crops)	11.49
Cotton (Row Crops)	10.05
Sorghum (Row Crops)	4.91
Soybeans (Row Crops)	11.12
Fruit (Horticultural)	0.39
Wheat (Close-Grown Cropland)	3.63
Summer Fallow (Other Cropland)	12.43
Other Vegetable and Truck Crops	5.87
Other Cropland not Planted	5.64
Conservation Reserve Program Lands	0.67
Non-Agricultural Land Use	0.00
Farmsteads and Ranch Headquarters	0.32

Table 4-22. Annual Estimated Total Soil Loss in Subwatershed 0801021003.